
Florida's Palm Beach County hosts grand opening of waste-to-energy facility

MASS BURN/INCINERATION

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A view of PBREF 2, called “jewel in the crown of SWA’s award-winning integrated solid waste management system.”

The [Solid Waste Authority \(SWA\) of Palm Beach County](#) held the grand opening of its advanced waste-to-energy facility, the Palm Beach Renewable Energy Facility 2 (PBREF2). The facility, owned by the SWA and located in West Palm Beach, Florida, was designed, manufactured and constructed by a consortium of [Babcock & Wilcox Power Generation Group Inc. \(B&W PGG\)](#), Charlotte, North Carolina, and [KBR Inc.](#), Houston. It is the considered cleanest and most-advanced power plant of its kind in North America. The SWA and the consortium celebrated the facility’s grand opening with a ribbon cutting ceremony on June 27.

B&W PGG designed and manufactured the plant’s three mass-burn, waste-to-energy (B&W) boilers, capable of generating up to 95 megawatts of electricity, and its environmental control system. The plant features DynaGrate air-cooled and water-cooled combustion grates designed by B&W Vølund and will be operated under a 20 year agreement by B&W PGG’s subsidiary, Palm Beach Resource Recovery Corporation, which has operated the adjacent PBREF 1 since 1989.

“We would like to thank and congratulate our customer, the SWA, as well as our consortium partner KBR, for a job well-done,” said B&W PGG Global Power Division Vice President Paul Scavuzzo. “The PBREF 2 is truly B&W PGG’s flagship project in North

America and a shining example of the game-changing potential of waste-to-energy technology.

“Plants like PBREF 2 not only provide valuable energy while drastically reducing the amount of waste we bury, but are also a valuable asset in reducing greenhouse potent gas emissions caused by methane generated in landfills,” Scavuzzo said. “With advanced emissions control systems of the kind we installed, these plants can also generate that power cleanly.”

“The completion of this state-of-the-art facility represents the culmination of a 10 year effort that virtually ensures to the taxpayers of Palm Beach County that their solid waste will be disposed of in the most efficient and environmentally sensitive method available in the world today long into the future,” said Ray Schauer, SWA director of engineering & public works. “PBREF 2 is a jewel in the crown of SWA’s award winning Integrated Solid Waste Management System that will set the standard for performance and environmental sustainability in North America.

“We truly appreciate the thousands of long hours and hard work that it has taken to complete this world class project,” Schauer said. “During the struggles of an economic downturn, our partners delivered on their promise to spend locally, with more than \$136 million spent with businesses in Palm Beach County and more than \$35 million spent with small businesses; and to hire locally, by using more than 1.1 million hours of construction labor by Palm Beach County residents.”

PBREF 2 is located on 24 acres adjacent to the county’s original WTE facility, also designed and built by B&W. As the most advanced and cleanest waste-to-energy power plant in North America, PBREF 2 will provide power for an estimated 44,000 homes and businesses while processing more than 1 million tons of post-recycled municipal solid waste each year. This will reduce reliance on the landfill by up to 90 percent, while also recycling an estimated 27,000 tons of steel, aluminum, copper and other metals annually.

B&W PGG’s emissions control technologies, including a selective catalytic reduction (SCR) system, pulse jet fabric filters, spray-dry absorbers (SDA) and continuous emissions monitoring system (CEMS) are designed to capture and control pollutants, including mercury and heavy metals, sulfur dioxide, nitrogen oxides and particulates, within permitted levels.